

**Commonwealth of Kentucky
Environmental and Public Protection Cabinet
Department for Environmental Protection
Division for Air Quality
803 Schenkel Lane
Frankfort, Kentucky 40601
(502) 573-3382**

**AIR QUALITY PERMIT
Issued under 401 KAR 52:040**

Permittee Name: EnerSys Inc.

Mailing Address: 761 Eastern By-Pass
Richmond, KY 40475

Source Name: EnerSys Inc.
Mailing Address: 761 Eastern By-Pass
Richmond, KY 40475

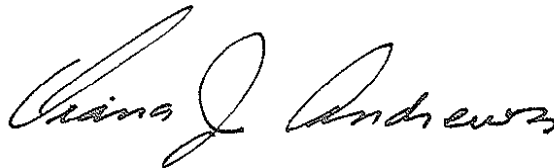
Source Location: Same as above.

Permit Number: S-06-202R1
Source A. I. #: 2864
Activity #: 20060004
Review Type: Initial State Operating Permit/ Minor Revisions.
Source ID #: 21-151-00032

Regional Office: Frankfort Regional Office
643 Teton Trail, Suite B.
Frankfort, KY 40601-3358

County: Madison

Application
Complete Date: April 14, 2006
Issuance Date: October 16, 2006
Revision Date: N/A
Expiration Date: October 16, 2016



**John S. Lyons, Director
Division for Air Quality**

SECTION A - PERMIT AUTHORIZATION

Pursuant to a duly submitted application the Kentucky Division for Air Quality hereby authorizes the construction and operation of the equipment described herein in accordance with the terms and conditions of this permit. This permit has been issued under the provisions of Kentucky Revised Statutes Chapter 224 and regulations promulgated pursuant thereto.

The permittee shall not construct, reconstruct, or modify any affected facilities without first submitting a complete application and receiving a permit for the planned activity from the permitting authority, except as provided in this permit or in 401 KAR 52:040, State-origin permits.

Issuance of this permit does not relieve the permittee from the responsibility of obtaining other permits, licenses, or approvals that may be required by the Cabinet or other federal, state, or local agencies.

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS

Description and Emission Points:

Emission Point	Process	Equipment	Max. Raw material lb/hr.	Control Devices
EP01	Lead Casting, Reclaim Furnace Date of Construction: 2005	11 NG fired melt pots, 9 Electric pots, 2 vacuum system, 1 reclaim furnace	27,000	Reverse –Air Baghouse Air Rate: 70,000 scfm
EP02	Motive Power, Small parts casting and Plate wrapping Date of Construction: 2004	Motive Power Assembly (Dept. 65) - Button Burn Stations for Lines 1, 2, and 3 Stationary Assembly (Dept. 67) - 2 Stack-burn-stow stations, 2 Button Burn Stations, 4 Plate Wrapping Stations Plate Finishing (Dept. 55) - 4 Sleeving Stations Small Parts Casting (Dept. 80) - 6 Electric and 3 Gas-fired Melt Pots/Casters Small Parts Casting (Dept. 81) - 1 Electric Melt Pot, 1 Training Station, 1 Tinning Pot Small Parts Casting (Cable Making) - 1 Electric Melt Pot, and 1 Lab Vent Hood	30,000 (Motive Power), 4,800 (Stationary Assembly), 17,890 (Small Parts Casting), 36,700 (Plate Wrapping)	Staclean Baghouse Air Rate: 70,000 scfm
EP03	Plate Finishing Date of Construction: 2004	Motive Power Assembly (Dept. 65) - 3 Stack-Burn-Stow Stations Plate Finishing (Dept. 55) - 3 Plate Brushing Stations, 6 Downdraft Tables, and 1 Vacuum System	36,700	Micropul Baghouse Air Rate: 75,000 acfm.
EP04, EP06	2 Tubular Positive plate filling Date of Construction: 1976	2 Ironclad filling machines	3,300 each	Pulsejet Baghouse Air Rate: 16,000 acfm. each.

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS

Description and Emission Points:

Emission Point	Process	Equipment	Max. Raw material lb/hr.	Control Devices
EP05	1 Tubular Positive plate filling Date of Construction: 1976	1 Ironclad filling machine	3,300	Pulsejet bag-house Air Rate: 12,000 acfm.
EP11, EP21 EP31	Lead Oxide Manufacturing Date of Construction: 1977	3 Oxide mill reactors, 3 Electric furnaces, 3 Dross drums and 2 quality control test stations	2,500 for EP11, EP31 and 2,000 for EP21	Reverse Air bag-house air rate: 2,600 scfm for EP11 and Pulsejet bag-house for EP21 & EP 31 air rate: 3,200/6,000 scfm respectively
EP24	Motive Power	Motive Power Assembly (Dept. 65) - 2 Stack Burn Stow Stations, 2 Button Burn Stations, 1 Cut Apart Saw, and 1 Vacuum System	27,000	Micropul Baghouse Air Rate: 75,000 acfm.
EP25	Pasting Date of Construction: 1998	2 paste mixing station, 2 pasting units, 2 flash dryers, 2 brushing stations	27,000	Staclean Pulsejet Baghouse. Air rate: 60,000 scfm.
EP41, EP42, EP43, EP44	Lead oxide storage and conveying Date of Construction: 1976	Lead oxide silos and conveyors	11,250 each	HEPA Filters Air rate: 7,500scfm each.

APPLICABLE REGULATIONS:

401 KAR 63:020, Potentially hazardous matter or toxic substances.

401 KAR 60:005, Standards performance for new stationary sources and incorporation of **40 CFR 60 Subpart KK**, Standards of Performance for Lead-Acid Battery manufacturing Plants.

401 KAR 59:010, New process operations.

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS

1. Operating Limitations:

None.

2. Emission Limitations:

- a. Pursuant to 401 KAR 59:010, emissions of particulate matter shall not exceed the allowable rate limit as calculated by the following equation using the process weight rate (in units of tons/hr).

For process rates up to 60,000 lbs/hr: $E = 3.59P^{0.62}$

For the equation: E = rate of emissions in lb/hr, and

P = process weight rate in tons/hr.

- b. Pursuant to 40 CFR 60.372(a)(8), no person shall cause, suffer, allow, or permit any continuous emission into the open air from a control device or stack from any lead reclamation facility which is greater than five (5) percent opacity (measured according to Method 9 and rounded to the nearest whole percent).
- c. (i) Pursuant to 40 CFR 60.372(a)(1), lead emissions from grid casting facility (EP01) shall not exceed 0.40 milligram per dry standard cubic meter of exhaust (0.000175 gr/dscf).
- (ii) Pursuant to 40 CFR 60.372(a)(5), lead emissions from reclaim furnace (EP01) shall not exceed 4.5 milligram per dry standard cubic meter of exhaust (0.00197 gr/dscf)
- (iii) Pursuant to 40 CFR 60.372(a)(6), lead emissions from paste mixing facility (EP25) shall not exceed 1.0 milligram per dry standard cubic meter of exhaust (0.000437 gr/dscf)
- (iv) Pursuant to 40 CFR 60.372(a)(4), lead emissions from lead oxide manufacturing facility (EP11, EP21, EP31) shall not exceed 5.0 milligram of lead per kilogram of lead feed (0.010lb/ton)
- (v) Pursuant to 40 CFR 60.372(a)(6), lead emissions from any other lead emitting operation shall not exceed 1.0 milligram per dry standard cubic meter of exhaust (0.000437 gr/dscf)
- (vi) Pursuant to 40 CFR 60.372(b), when two or more facilities at the same plant (except the lead oxide manufacturing facility) are ducted to common control device, an equivalent standard for the total exhaust from the commonly controlled

facilities shall be determined as follows: $S_e = \sum_{a=1}^N Sa(Qsd_a / Qsd_T)$

Where:

S_e = is the equivalent standard for the total exhaust stream.

Sa = is the actual standard for each exhaust stream ducted to the control device.

N = is the total number of exhaust streams ducted to the control device.

Qsd_a = is the dry standard volumetric flow rate of the effluent gas stream from facility ducted to the control device.

Qsd_T = is the total dry standards volumetric flow rate of all effluent gas streams ducted to the control device.

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

Compliance Demonstration Methods:

- a. See **Section B.4.** monitoring requirement.
- b. See testing requirement below for stack testing required to comply with condition 2.c. above.

3. Testing Requirements:

Within 180 days of issuance of the permit, the facility shall conduct performance test on each emission point to show compliance with 40 CFR 60.372, except 40 CFR 60.372 (a)(4) as detailed in 40 CFR 60.374 (b).

4. Monitoring Requirements:

- a. Once per day when each unit is operating under maximum conditions, the permittee shall survey the emissions associated with each emission point for visible emissions and maintain a daily log noting the following information:
 - (1) Whether any air emissions were visible from the emission unit;
 - (2) All emission points from which visible emissions were observed;
 - (3) Whether the visible emissions were normal for the respective emissions unit.
- b. If no visible emissions are observed then no further monitoring is required. If visible emissions are observed, the permittee shall perform a Method 9 reading for emission points of concern. The opacity observed shall be recorded in the daily log. The reading shall be performed by a representative of the permittee certified in Visible Emissions Evaluations. The permittee shall maintain a list of all individuals that are certified Visible Emissions Evaluators and the date of certification.

5. Recordkeeping Requirements:

Refer to **Section C.B**

6. Reporting Requirements: Refer to Section C.C

7. Specific Control Equipment Operating Conditions:

Bag-houses:

Emission Point(s)/Affected Facility	Control Equipment	Monitoring and Operating Parameters (check once per day)	Comments
EP01, EP02, EP03, EP04, EP05, EP06, EP24, EP25	Baghouse	Pressure Drop	a) Refer to Section C.G b) Exceedance of operating parameters shall be reported and/or repaired in accordance with Section C.

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

- a. Bag-house shall be operated in accordance with design/operating parameters at all times the emission point is in operation. Design/operating parameters shall be established during the time frame of compliance testing.
- b. The bag-house shall be inspected on an annual basis. Preventive maintenance shall be performed in accordance with manufacturer's specifications. The bag-house shall be inspected on an annual basis for proper operation of the following:
 - 1. Shaker or vibrator device to release dust cake from bags
 - 2. Airflow source and equipment
 - 3. Pressure drop measuring system
- c. The permittee shall record the occurrence, duration, cause, and any corrective action taken for each incident when the emission points are in operation but the associated air pollution control equipment is not.

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

EP01 Natural Gas-fired Melt Pot Burner Combustion

Rated Capacity: 5.6 mmBtu/hr

Date of Construction: 1976

Control Device: Fabric Filters

EP16, EP17 Natural Gas-fired Thermal-oil Boilers

Rated Capacity: 15.5 mmBtu/hr, each

Date of Construction: 1975

Control Device: None

Applicable Regulations:

401 KAR 59:005, General provisions

401 KAR 59:015, New indirect heat exchangers constructed on or after April 9, 1972

1. Operating Limitations:

None

2. Emission Limitations:

- a. The permittee shall not discharge into the atmosphere from each boiler stack sulfur dioxide (SO₂) in excess of 1.61 lb/mmBtu actual heat input, based on a 3-hour average. [401 KAR 59:015, Section 5 (1)(c), Standard for SO₂]
- b. The permittee shall not discharge into the atmosphere from each boiler stack particulate matter in excess of 0.39 lb/mmBtu actual heat input, based on a 3-hour average. [401 KAR 59:015, Section 4 (1)(c), Standard for Particulate Matter]
- c. The permittee shall not discharge into the atmosphere from each boiler stack emissions which exhibit greater than twenty (20) percent opacity, based on a 6-minute average, except as allowed by 401 KAR 59:015, Section 4(2)(b) and (c). [401 KAR 59:015, Section 4 (2), Standard for Particulate Matter]

Compliance Demonstration Method:

Each boiler is in compliance with the SO₂ limits, particulate emission limits, and the opacity limitation, based on combustion of natural gas.

3. Testing Requirements:

None

4. Monitoring Requirements:

None

5. Recordkeeping Requirements:

None

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

6. Reporting Requirements:

None

7. Specific Control Equipment Operating Conditions:

None

8. Alternate Operating Scenarios:

None

SECTION C - GENERAL CONDITIONS

A. Administrative Requirements

1. The permittee shall comply with all conditions of this permit. Noncompliance shall be a violation of 401 KAR 52:040, Section 3(1)(b) and is grounds for enforcement action including but not limited to the termination, revocation and reissuance, or revision of this permit.
2. This permit shall remain in effect for a fixed term of ten (10) years following the original date of issue. Permit expiration shall terminate the source's right to operate unless a timely and complete renewal application has been submitted to the Division at least six months prior to the expiration date of the permit. Upon a timely and complete submittal, the authorization to operate within the terms and conditions of this permit, including any permit shield, shall remain in effect beyond the expiration date, until the renewal permit is issued or denied by the Division. [401 KAR 52:040, Section 15]
3. Any condition or portion of this permit which becomes suspended or is ruled invalid as a result of any legal or other action shall not invalidate any other portion or condition of this permit [Material incorporated by reference by 401 KAR 52:040, Section 1a, 11].
4. Pursuant to materials incorporated by reference by 401 KAR 52:040, this permit may be revised, revoked, reopened, reissued, or terminated for cause. The filing of a request by the permittee for any permit revision, revocation, reissuance, or termination, or of a notification of a planned change or anticipated noncompliance shall not stay any permit condition [Material incorporated by reference by 401 KAR 52:040, Section 1a, 4,5].
5. This permit does not convey property rights or exclusive privileges [Material incorporated by reference by 401 KAR 52:040, Section 1a, 8].
6. Nothing in this permit shall alter or affect the liability of the permittee for any violation of applicable requirements prior to or at the time of permit issuance [401 KAR 52:040 Section 11(3)].
7. This permit shall be subject to suspension at any time the permittee fails to pay all fees within 90 days after notification as specified in 401 KAR 50:038, Air emissions fee. The permittee shall submit an annual emissions certification pursuant to 401 KAR 52:040, Section 20.
8. All previously issued permits to this source at this location are hereby null and void

SECTION C - GENERAL CONDITIONS (CONTINUED)

B. Recordkeeping Requirements

1. Records of all required monitoring data and support information, including calibrations, maintenance records, and original strip chart recordings, and copies of all reports required by the Division for Air Quality, shall be retained by the permittee for a period of at least five years and shall be made available for inspection upon request by any duly authorized representative of the Division for Air Quality [401 KAR 52:040 Section 3(1)(f)].
2. The permittee shall perform compliance certification and recordkeeping sufficient to assure compliance with the terms and conditions of the permit. Documents, including reports, shall be certified by a responsible official pursuant to 401 KAR 52:040, Section 21.

C. Reporting Requirements

1.
 - a. In accordance with the provisions of 401 KAR 50:055, Section 1, the permittee shall notify the Regional Office listed on the front of this permit concerning startups, shutdowns, or malfunctions as follows:
 - i. When emissions during any planned shutdowns and ensuing startups will exceed the standards, notification shall be made no later than three (3) days before the planned shutdown, or immediately following the decision to shut down, if the shutdown is due to events which could not have been foreseen three (3) days before the shutdown.
 - ii. When emissions due to malfunctions, unplanned shutdowns and ensuing startups are or may be in excess of the standards, notification shall be made as promptly as possible by telephone (or other electronic media) and shall be submitted in writing upon request.
 - b. The permittee shall promptly report deviations from permit requirements including those attributed to upset conditions (other than emission exceedances covered by Reporting Requirement condition 1. a. above), the probable cause of the deviation, and corrective or preventive measures taken; to the Regional Office listed on the front of this permit within 30 days. Other deviations from permit requirements shall be included in the semiannual report [Material incorporated by reference by 401 KAR 52:040, Section 5, 3].
2. The permittee shall furnish information requested by the Cabinet to determine if cause exists for modifying, revoking and reissuing, or terminating the permit; or to determine compliance with the permit [Material incorporated by reference by 401 KAR 52:040, Section 1a, 6].
3. Summary reports of monitoring required by this permit shall be submitted to the Regional Office listed on the front of this permit at least every six (6) months during the life of this permit. For emission units that were still under construction or which had not commenced operation at the end of the 6-month period covered by the report and are subject to monitoring requirements in this permit, the report shall indicate that no monitoring was performed during the previous six months because the emission unit was not in operation.

The summary reports are due January 30th and July 30th of each year. All deviations from permit requirements shall be clearly identified in the reports. All reports shall be certified by a responsible official pursuant to 401 KAR 52:040, Section 21.

SECTION C - GENERAL CONDITIONS (CONTINUED)

D. Inspections

1. In accordance with the requirements of 401 KAR 52:040, Section 3(1)(f) the permittee shall allow authorized representatives of the Cabinet to perform the following during reasonable times. Reasonable times are defined as during all hours of operation, during normal office hours; or during an emergency:
 - a. Enter upon the premises to inspect any facility, equipment (including air pollution control equipment), practice, or operation.
 - b. To access and copy any records required by the permit.
 - c. Inspect, at reasonable times, any facilities, equipment (including monitoring and pollution control equipment), practices, or operations required by the permit.
 - d. Sample or monitor, at reasonable times, substances or parameters to assure compliance with the permit or any applicable requirements.

E. Emergencies/Enforcement Provisions

1. The permittee shall not use as defense in an enforcement action, the contention that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance [Material incorporated by reference by 401 KAR 52:040, Section 1a, 3].
2. An emergency shall constitute an affirmative defense to an action brought for the noncompliance with the technology-based emission limitations if the permittee demonstrates through properly signed contemporaneous operating logs or relevant evidence that:
 - a. An emergency occurred and the permittee can identify the cause of the emergency;
 - b. The permitted facility was at the time being properly operated;
 - c. During an emergency, the permittee took all reasonable steps to minimize levels of emissions that exceeded the emissions standards or other requirements in the permit; and
 - d. The permittee notified the Division as promptly as possible and submitted written notice of the emergency to the Division within two working days after the time when emission limitations were exceeded due to the emergency and included a description of the emergency, steps taken to mitigate emissions, and corrective actions taken.
3. Emergency provisions listed in General Condition E.2 are in addition to any emergency or upset provision contained in an applicable requirement [401 KAR 52:040, Section 22(1)].
4. In an enforcement proceeding, the permittee seeking to establish the occurrence of an emergency shall have the burden of proof. [401 KAR 52:040, Section 22(2)].

SECTION C - GENERAL CONDITIONS (CONTINUED)

F. Compliance

1. Periodic testing or instrumental or non-instrumental monitoring, which may consist of record keeping, shall be performed to the extent necessary to yield reliable data for purposes of demonstration of continuing compliance with the conditions of this permit. For the purpose of demonstration of continuing compliance, the following guidelines shall be followed:
 - a. Pursuant to 401 KAR 50:055, General compliance requirements, Section 2(5), all air pollution control equipment and all pollution control measures proposed by the application in response to which this permit is issued shall be in place, properly maintained, and in operation at any time an affected facility for which the equipment and measures are designed is operated, except as provided by 401 KAR 50:055, Section 1.
 - b. All the air pollution control systems shall be maintained regularly in accordance with good engineering practices and the recommendations of the respective manufacturers. A log shall be kept of all routine and nonroutine maintenance performed on each control device.
 - c. A log of the monthly raw material consumption and monthly production rates shall be kept available at the facility. Compliance with the emission limits may be demonstrated by computer program, spread sheets, calculations or performance tests as may be specified by the Division [401 KAR 50:055, Section 2].
2. Pursuant to 401 KAR 52:040, Section 19, the permittee shall certify compliance with the terms and conditions contained in this permit by January 30th of each year, by completing and returning a Compliance Certification Form (DEP 7007CC) (or an approved alternative) to the Regional Office listed on the front of this permit in accordance with the following requirements:
 - a. Identification of the term or condition;
 - b. Compliance status of each term or condition of the permit;
 - c. Whether compliance was continuous or intermittent;
 - d. The method used for determining the compliance status for the source, currently and over the reporting period, and
 - e. For an emissions unit that was still under construction or which has not commenced operation at the end of the 12-month period covered by the annual compliance certification, the permittee shall indicate that the unit is under construction and that compliance with any applicable requirements will be demonstrated within the timeframes specified in the permit.
 - f. The certification shall be postmarked by January 30th of each year. Annual compliance certifications should be mailed to the following addresses:

Division for Air Quality
Frankfort Regional Office
643 Titon Trail, Suite B
Frankfort, KY 40601

Division for Air Quality
Central Files
803 Schenkel Lane
Frankfort, KY 40601-1403

SECTION C - GENERAL CONDITIONS (CONTINUED)

3. Permit Shield - A permit shield shall not protect the owner or operator from enforcement actions for violating an applicable requirement prior to or at the time of permit issuance. Compliance with the conditions of this permit shall be considered compliance with all:
 - (a) Applicable requirements that are included and specifically identified in this permit; or
 - (b) Non-applicable requirements expressly identified in this permit [401 KAR 52:040, Section 11].

G. Construction Requirements:

1. Pursuant to 401 KAR 52:040, Section 12(3), unless construction is commenced on or before 18 months after the date of issuance of this permit, or if construction is commenced and then stopped for any consecutive period of 18 months or more, or is not completed within a reasonable timeframe, then the construction and operating authority granted by this permit for those affected facilities for which construction was not completed shall immediately become invalid. Upon a written request, the Cabinet may extend these time periods if the source shows good cause.
2. Pursuant to 401 KAR 52:040, Section 12(4)(a) and 401 KAR 59:005, General provisions, Section 3(1), within 30 days following construction commencement, within 15 days following start-up and attainment of maximum production rate, or within 15 days following the issuance date of this permit, whichever is later, the owner and/or operator of the affected facilities specified on this permit shall furnish to the Regional Office listed on the front of this permit, with a copy to the Division's Frankfort Central Office, the following:
 - a. Date when construction commenced, (See General Condition G.1).
 - b. Start-up date of each of the affected facilities listed on this permit.
 - c. Date when maximum production rate was achieved, (See General Condition G.3.b).

SECTION D - INSIGNIFICANT ACTIVITIES

The following listed activities have been determined to be insignificant activities for this source pursuant to 401 KAR 52:040, Section 6. While these activities are designated as insignificant the permittee shall comply with the applicable regulation and any level of periodic monitoring specified below.

<u>Description</u>	<u>Generally Applicable Regulation</u>
1. EP07- Acid Dip Process	401 KAR 59:010
2. EP08- Acid Mix Process	None
3. EP12- Battery Cover Gluing Process	None
4. EP18- Water Heater (2.01 mmBtu/hr)	401 KAR 59:015
5. EP20- Battery Tray Painting	None
6. EP22- Process Boiler (3.35 mmBtu/hr)	401 KAR 59:015
7. EP23- Process Boiler (3.35 mmBtu/hr)	401 KAR 59:015
8. EP26- Water Heater (1.0 mmBtu/hr)	401 KAR 59:015
9. EP27- Water Heater (2.51 mmBtu/hr)	401 KAR 59:015
10. EP32- Boiler (0.68 mmBtu/hr)	401 KAR 59:015
11. EP33- Battery Formation Department	None